

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims

1 - 23. (Canceled)

24. (New) An electric fan motor comprising:

a first motor housing having at least one inlet opening disposed on a surface of the first motor housing;

a second motor housing having at least one outlet opening disposed on a surface of the second motor housing; and

a stator comprising:

- i) a plurality of laminations formed in a stack and substantially disposed within at least one of the first motor housing and the second motor housing, the stack having a plurality of passages formed therethrough,
- ii) windings passing within at least a portion of said plurality of passages,
- iii) a first portion of the windings disposed on a first side of the stack and substantially within the first motor housing, and,
- iv) a second portion of the windings disposed on a second side of the stack and substantially within the second motor housing,

wherein the at least one inlet opening is in fluid communication with the at least one outlet opening and air flows i) into the at least one inlet opening, ii) over the first portion of windings, substantially all of an exterior portion of the plurality of laminations, and the second portion of windings, and iii) out the at least one outlet opening.

25. (New) An electric motor according to claim 24 further comprising, a motor cover substantially enclosing the first and second motor housings therein, the motor cover including:

- i) a first cover coupled to the second motor housing, the first cover having at least one opening in a surface thereof, the at least one opening adjacent and in fluid communication with the at least one opening in the second motor housing, and
 - ii) a second cover coupled to the first cover and substantially surrounding the first and second motor housings, the second cover having at least one opening in a surface thereof, the at least one opening adjacent and in fluid communication with the at least one opening in the first motor housing.
26. (New) An electric motor according to claim 25, wherein the first and second covers are formed from at least one of a metal and a polymer.
27. (New) An electric motor according to claim 25, wherein the second cover is coupled to a portion of the first motor housing.
28. (New) An electric motor according to claim 25, further comprising means for sealing the first cover to the second cover.
29. (New) An electric motor according to claim 24 further comprising, a motor cover substantially enclosing the first and second motor housings therein, the motor cover including:
- i) a first cover coupled to the second motor housing and substantially surrounding the first and second motor housings, the first cover having at least one opening in a surface thereof, the at least one opening adjacent and in fluid communication with the at least one opening in the second motor housing, and
 - ii) a second cover coupled to the first cover, the second cover having at least one opening in a surface thereof, the at least one opening adjacent and in fluid communication with the at least one opening in the first motor housing.
30. (New) An electric motor according to claim 24, wherein the first and second motor housings are formed from a metal.

31. (New) An electric motor according to claim 24, wherein the stator is substantially square.
32. (New) An electric motor according to claim 24, wherein the stator is substantially round.
33. (New) An electric motor according to claim 24, wherein an end portion of the stator is coupled to at least one of the first and second motor housings.
34. (New) An electric motor according to claim 24, wherein the at least one opening in the first motor housing and the at least one opening in the second motor housing are in respective planes that are substantially parallel to one another.
35. (New) An electric motor according to claim 24, further comprising:
- a rotor at least partially disposed adjacent the stator,
 - a shaft coupled to the rotor and extending through the second motor housing such that an end portion of the shaft is positioned external the second motor housing; and
 - a fan blade coupled to the end portion of the shaft and adjacent the at least one outlet opening.
36. (New) An oscillating fan incorporating the electric motor according to claim 24.
37. (New) An electric fan motor comprising:
- a first motor housing comprising:
 - i) a first wall defining a first interior space,
 - ii) at least one opening disposed on a surface of the first motor housing, and
 - iii) a mating surface;
 - a second motor housing comprising:
 - i) a second wall defining a second interior space,

- ii) at least one opening disposed on a surface of the second motor housing, and
- iii) a mating surface; and

a stator comprising:

- i) a plurality of laminations coupled to a portion of the mating surface of the first motor housing and a second surface coupled to the mating surface of the second motor housing,
- ii) a first portion of windings disposed within only the first interior space, and
- iii) a second portion of windings disposed within only the second interior space,

wherein the air flows i) into the at least one opening in the first motor housing, ii) over the first portion of windings, substantially all of an exterior portion of the plurality of stator laminations, and the second portion of windings, and iii) out the at least one opening in the second motor housing.

38. (New) An electric motor comprising:

a first motor housing comprising:

- i) a first wall defining a first interior space, and
- ii) at least one opening disposed on a surface of the first motor housing;

a second motor housing comprising:

- i) a second wall defining a second interior space, and
- ii) at least one opening disposed on a surface of the second motor housing; and

a stator comprising i) a plurality of laminations, ii) a first portion of windings and iii) a second portion of windings, the plurality of laminations disposed substantially within a space defined by a combination of the first interior space and the second interior space,

wherein air flows i) into the at least one opening in the first housing, ii) over the first portion of windings, substantially all of an exterior portion of the plurality of stator laminations, and the second portion of windings, and iii) out the at least one opening in the second housing.

39. (New) An oscillating fan incorporating the electric motor according to claim 38.

40. (New) An electric fan motor comprising:

rotor means;

stator means for providing an electro-magnetic force to the rotor means;

first motor housing means for housing therein only a first portion of the stator means;

second motor housing means for housing therein only a second portion of the stator means; and

ventilation means for providing airflow i) into the first motor housing means, ii) over at least substantially all of an exterior portion the stator means, and iii) out of the second motor housing means.

41. (New) An electric motor according to claim 40 further comprising:

cover means for covering the first and second motor housing means; and

sealing means for forming a seal in the cover means,

wherein the airflow passes into a first portion of the cover means, through the first and second motor housing means and out a second portion of the cover means.

42. (New) An electric motor according to claim 40, wherein the motor is a permanent split capacitor motor.

43. (New) An electric motor according to claim 40, wherein the motor is a shaded pole motor.

44. (New) A method for cooling an electric motor having a stator with a plurality of laminations and motor windings, the method comprising the steps of:

providing a first motor housing with a first surface, and defining a first interior space;

providing a second motor housing with a second surface, and defining a second interior space;

enclosing only a first portion of the motor windings within the first interior space;

enclosing only a second portion of the motor windings within the second interior space;

enclosing substantially all of the plurality of stator laminations within both the first interior space and the second interior space; and

providing airflow i) into the first surface of the first motor housing, ii) over substantially all of an exterior portion of the plurality of stator laminations, iii) over substantially all of the motor windings, and iv) out of the second surface of the second motor housing.

45. (New) An electric fan motor comprising:

a first motor housing having at least one inlet opening disposed on a surface of the first motor housing;

a second motor housing having at least one outlet opening disposed on a surface of the second motor housing; and

a stator comprising:

- i) a plurality of laminations formed in a stack and substantially disposed within at least one of the first motor housing and the second motor housing, the stack having a plurality of passages formed therethrough,

- ii) windings passing within at least a portion of said plurality of passages,
- iii) a first portion of the windings disposed on a first side of the stack and adjacent an end wall of the first motor housing, and,
- iv) a second portion of the windings disposed on a second side of the stack and adjacent an end wall of the second motor housing,

wherein the at least one inlet opening is in fluid communication with the at least one outlet opening and air flows i) into the at least one inlet opening, ii) over the first portion of windings, substantially all of an exterior portion of the plurality of laminations, and the second portion of windings, and iii) out the at least one outlet opening.

46. (New) An electric fan motor comprising:

a first motor housing comprising:

- i) a first wall defining a first interior space,
- ii) at least one opening disposed on a surface of the first motor housing, and
- iii) a mating surface;

a second motor housing comprising:

- i) a second wall defining a second interior space,
- ii) at least one opening disposed on a surface of the second motor housing, and
- iii) a mating surface; and

a stator comprising:

- i) a plurality of laminations coupled to the first motor housing and the second motor housing, and

- ii) a first portion of windings and a second portion of windings disposed substantially within at least one of the first and second motor housings,

wherein the air flows i) into the at least one opening in the first motor housing, ii) over the first portion of windings, substantially all of an exterior portion of the plurality of stator laminations, and the second portion of windings, and iii) out the at least one opening in the second motor housing.